

SOLAR AND SKY RADIATION MEASUREMENTS DURING JANUARY, 1920.

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[Pending a decision as to an appropriate reduced form in which to present these data, publication will be delayed.]

MEASUREMENTS OF THE SOLAR CONSTANT OF RADIATION AT CALAMA, CHILE.

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In continuation of preceding publications I give in the following table the results obtained at Calama, Chile, in December, 1919, for the solar constant of radiation. The reader is referred to this REVIEW for February, August, and September, 1919, for statements of the arrangement and meaning of the table.

A special feature of the December values is their general high level and their rise to an uncommonly high maximum near the end of the month. This is interesting in connection with the generally low temperature in the eastern part of the United States.

Date.	Solar constant.	Method.	Grade.	Transmission coefficient at 0.5 micron.	Humidity.			Remarks.
					ρ/p s.c.	V. P.	Relative humidity.	
1919. P. M. Dec. 1	cal. 1.955 1.958 1.957 1.960	$M_{1.5}$ $M_{1.5}$ $W. M.$ $M_{2.0}$	S	0.854	0.621	cm. 0.27	% 11	Cirri scattered about sky.
3	1.959 1.950 1.958	$M_{1.5}$ $M_{1.5}$ $W. M.$	S	.847	.615	.38	16	Cirri scattered over much of sky, but gradually disappearing.
A. M. 5	1.958	E_0	E—	.849	.472	.27	24	Some thin scattered cirri in east, north, and west, gradually disappearing.
6	1.959 1.959 1.944 1.950 1.948	$M_{1.5}$ $M_{2.0}$ $M_{1.5}$ $W. M.$ $M_{2.0}$	S—	.819	.409	.34	23	Cirri in east and some scattered about rest of sky.
7	1.939 1.943 1.934	$M_{1.5}$ $W. M.$ $M_{1.5}$	S—	.826	.479	.36	26	Cirri in southwest and scattered thinly about rest of sky.
8	1.944	$M_{2.0}$	S+	.833	.447	.45	32	Cirri in east, west, and south.
9	1.944 1.944 1.965	$M_{1.5}$ $W. M.$ $M_{1.5}$	U+	.852	.618	.48	31	Cirri in all parts of sky.
P. M. 10	1.947	$M_{2.0}$	S—	.836	.483	.41	19	Cirri in east, but clearing in west.
A. M. 12	1.959 1.955 1.926 1.972 1.969 1.953 1.957	$M_{1.5}$ $W. M.$ E_0 $M_{1.5}$ $M_{2.0}$ $M_{1.5}$ $W. M.$	VG+	.848	.415	.42	41	Distant cirri in north, east, and west.

Date.	Solar constant.	Method.	Grade.	Transmission coefficient at 0.5 micron.	Humidity.			Remarks.
					ρ/p s.c.	V. P.	Relative humidity.	
1919. A. M. Dec. 15	cal. 1.944 1.964 1.951 1.945	$M_{1.5}$ $M_{1.5}$ $W. M.$ $M_{1.5}$	S—	.815	.361	cm. .63	% 42	Cirri over sky.
16	1.945	$M_{1.5}$	S—	.827	.433	.80	46	Cirrocumuli scattered over most of sky.
17	1.940	E_0	G	.816	.269	.67	55	Cirri in north and east, some cumuli in south.
18	1.994 2.006 1.941 1.965 2.009	$M_{2.0}$ $M_{2.0}$ $M_{1.5}$ $W. M.$ $M_{2.0}$	S—	.829	.332	.65	46	Cirri in east and north, moving south.
19	1.973 1.985 1.967	$M_{1.5}$ $W. M.$ $M_{1.5}$	S—	.839	.477	.70	30	Thin cirri over much of sky, especially in north and east. Distant cumuli in east.
20	1.945 1.960	$M_{1.5}$ $W. M.$	S—	.839	.570	.53	28	Cirri scattered about sky.
21	1.948 1.948	$M_{1.5}$ $M_{1.5}$	S—	.840	.563	.38	22	Very thin cirri over much of sky.
22	1.959 1.983 1.977 1.963 1.969	E_0 $M_{2.0}$ $M_{2.0}$ $M_{1.5}$ $W. M.$	VG+	.828	.364	.40	38	Cirri in northeast.
23	1.967 1.996 1.970 1.954 1.967	E_0 $M_{2.0}$ $M_{2.0}$ $M_{1.5}$ $W. M.$	E—	.817	.330	.38	34	
24	1.932 1.997 1.975 1.976 1.972	E_0 $M_{2.0}$ $M_{2.0}$ $M_{1.5}$ $W. M.$	VG—	.856	.363	.38	34	
25	2.006 1.964 1.978	$M_{2.0}$ $M_{1.5}$ $W. M.$	U+	.824	.362	.49	37	Some cumuli in east.
26	1.987	E_0	VG	.802	.253	.54	56	Cirrocumuli low in east.
27	1.807	E_0	P	.812	.218	.65	69	Cirrocumuli in north and east, and some cirri in south.
28	2.008	$M_{2.0}$	U+	.822	.314	.65	46	Cumuli along horizon in east.
29	1.981 1.994 1.964	$M_{1.5}$ $W. M.$ $M_{1.5}$	U+	.826	.442	.78	43	Scattered cirri and cumuli over most of sky.
31	1.964 2.002 1.975 1.979	E_0 $M_{2.0}$ $M_{1.5}$ $W. M.$	G	.830	.304	.61	53	Cirrocumuli scattered over much of sky.